

AMENMENTS TO THE CLAIMS

COMPLETE LISTING OF THE CLAIMS

11. (Currently Amended) A catheter assembly for use as one of an intravascular catheter, a coronary catheter, a drainage catheter, a chemotherapy delivery catheter or a neuro-procedure catheter and comprising a tubular body having a proximal portion and a distal portion and a separate short distal tip which is coupled to an outer end of said distal portion and which is made of a radiopaque material selected from one of barium sulfate, bismuth subcarbonate or a metal powder compounded with a plastic thermoresponsive material modified or diluted with polyurethane resin to control the softening properties of the thermoresponsive tip and having a temperature responsive hardness memory ~~only~~ tip which is harder at temperatures below a critical temperature of approximately 31 degrees C and softer at temperatures above said critical temperature, said distal tip having a Shore hardness of 72-75 D at temperatures below said critical temperature for facilitating the pushing of said catheter into an introducing catheter and having a Shore hardness of 32-35 D at temperatures above said critical temperature, said distal tip being made of a thermoresponsive polyurethane and having a radio-opaque material therein, ~~said distal tip not being a shape memory tip~~, and said tubular body being coated with a jacket made of said plastic thermoresponsive hardness memory ~~only~~ material.

12. (Original) The catheter assembly of claim 11 wherein said tubular body is a wire braided body comprising an inner tubular extrusion, a wire braid on the outer surface of said inner tubular extrusion and an outer tubular extrusion extruded over said wire braid.

13. (Original) The catheter assembly of claim 11 wherein said distal portion of said tubular body is tapered and said distal tip is welded on or molded on said tapered distal portion.

14. (Currently Amended) A catheter assembly for use as one of an intravascular catheter, a coronary catheter, a drainage catheter, a chemotherapy

delivery catheter or a neuro-procedure catheter and comprising a tubular body having a proximal portion and a distal portion and a separate distal tip which is coupled to an outer end of said distal portion, which has a temperature responsive hardness memory ~~only~~ tip and which is made of a radiopaque material selected from one of barium sulfate, bismuth subcarbonate or a metal powder compounded with a plastic thermoresponsive material which is modified or diluted with polyurethane resin to control the softening properties of the thermoresponsive tip and which is harder at temperatures below a critical temperature of approximately 31 degrees C and softer at temperatures above said critical temperature, said distal tip having a Shore hardness of 72-75 D at temperatures below said critical temperature for facilitating the pushing of said catheter into an introducing catheter and having a Shore hardness of 32-35 D at temperatures above said critical temperature, said distal tip being made of a thermoresponsive polyurethane and having a radio-opaque material therein, ~~said distal tip not being a shape memory tip~~, said distal portion of said tubular body being tapered and said distal tip being welded on or molded on said tapered distal portion of said tubular body.

15. (Currently Amended) The catheter claim assembly of claim 14 wherein said tubular body is coated with a jacket made of said thermoresponsive hardness memory ~~only~~ material.

16. (Original) The catheter assembly of claim 14 wherein said tubular body is a wire braided body comprising an inner tubular extrusion, a wire braid on the outer surface of said inner tubular extrusion and an outer tubular extrusion extruded over said wire braid.

17. (Currently Amended) A catheter assembly for use as one of an intravascular catheter, a coronary catheter, a drainage catheter, a chemotherapy delivery catheter or a neuro-procedure catheter and comprising a tubular body having a proximal portion and a distal portion and a separate distal tip which is coupled to an outer end of said distal portion, which has a temperature responsive hardness memory ~~only~~ tip and which is made of a radiopaque material selected from one of barium sulfate, bismuth subcarbonate or a metal powder compounded with a plastic thermoresponsive material which is modified or diluted with

polyurethane resin to control the softening properties of the thermoresponsive tip
and which is harder at temperatures below a critical predetermined temperature
and softer at temperatures above said critical temperature, ~~said distal tip not being~~
~~a shape-memory tip~~, and said tubular body being coated with a jacket made of said
plastic thermoresponsive hardness memory ~~only~~ material.

18. (Original) The catheter assembly of claim 17 wherein said tubular body
is a wire braided body comprising an inner tubular extrusion, a wire braid on the
outer surface of said inner tubular extrusion and an outer tubular extrusion
extruded over said wire braid.

19. (Currently Amended) The catheter assembly for use as one of an
intravascular catheter, a coronary catheter, a drainage catheter, a chemotherapy
delivery catheter or a neuro-procedure catheter and comprising a tubular body
having a proximal portion and a distal portion and a separate distal tip which is
coupled to an outer end of said distal portion, which has a temperature responsive
hardness memory ~~only~~ tip and which is made of a radiopaque material selected
from one of barium sulfate, bismuth subcarbonate or a metal powder compounded
with a plastic thermoresponsive material which is modified or diluted with
polyurethane resin to control the softening properties of the thermoresponsive tip
and which is harder at temperatures below a critical predetermined temperature
and softer at temperatures above said critical temperature, ~~said distal tip not being~~
~~a shape-memory tip~~.

20. (Original) The catheter assembly of claim 14 wherein said tubular body
is a wire braided body comprising an inner tubular extrusion, a wire braid on the
outer surface of said inner tubular extrusion and an outer tubular extrusion
extruded over said wire braid.

21. (Currently Amended) A catheter assembly for use as one of an
intravascular catheter, a coronary catheter, a drainage catheter, a chemotherapy
delivery catheter or a neuro-procedure catheter and comprising a tubular body
having a proximal portion and a distal portion and a separate distal tip which
includes polyurethane and a radiopaque material selected from one of barium

sulfate, bismuth subcarbonate or a metal powder compounded with a plastic and which is coupled to an outer end of said distal portion and said tubular body being coated with a jacket made of a plastic thermoresponsive hardness memory only material which is harder at temperatures below a critical predetermined temperature and softer at temperatures above said critical temperature and which is modified or diluted with polyurethane resin to control the softening properties of the jacket.

22. (Original) The catheter assembly of claim 21 wherein said tubular body is a wire braided body comprising an inner tubular extrusion, a wire braid on the outer surface of said inner tubular extrusion and an outer tubular extrusion extruded over said wire braid.